



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,141	01/16/2004	Brian Farnworth	FA/243A	7216
28596	7590	12/14/2006		
GORE ENTERPRISE HOLDINGS, INC. 551 PAPER MILL ROAD P. O. BOX 9206 NEWARK, DE 19714-9206			EXAMINER DESAI, ANISH P	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,141

Applicant(s)

FARNWORTH, BRIAN

Examiner

Anish Desai

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 1-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The applicant's arguments in response to the Office action dated 04/20/06 have been fully considered.

1. Claims 1-43 are pending. Claims 1-26 are withdrawn. Claims 27-43 are pending. Claims 30-43 are newly added claims. Support for newly added claims is found in the specification.
2. All of the art rejections are maintained. A new ground of rejection is made over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100).
3. The obviousness-type double patenting rejections will not be withdrawn until the submission of the terminal disclaimer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbuio (US 3,925,916) substantially as set forth in 04/20/06 Office action.

Garbuio teaches a flexible insulated insert for a boot comprising a foot fitting liner with a core of elastomeric sheet material sandwiched between two skins wherein the part of the core is an open celled foam polymer in an air-impervious envelope, preferably of heat sealable plastic (Abstract and Column 1, lines 14-17). The open celled foam polymer of Garbuio reads on the porous material contained within the

Art Unit: 1771

envelope as claimed in the presently claimed subject matter. Further, Figure 1 of Garbuio shows a toe cap area, a boot upper, a boot sole, inner, and outer boot layers as claimed in the presently claimed subject matter. With respect to claim 27, although Garbuio does not explicitly teach the insulating structure having thermal conductivity of less than or equal to 25 mW/mK at 25°C, it is the examiner's position that since the invention of Garbuio has the same utility as the applicant (i.e. boot insulations) the flexible insulated insert comprising a foot fitting liner with a core of elastomeric sheet material of Garbuio necessarily has the thermal conductivity of 25 mW/mK at 25°C or lower in order to successfully practice the instantly claimed invention.

With respect to claim 28, Figure 1 of Garbuio clearly shows the ski boot 1 having insert 2 (foot-filling liner) that is located between the inner and outer layers. With respect to claim 29, as shown in Figure 1, the insert 2 is in contact (affixed) to the inner boot layer.

5. Claims 27-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100).

Applicant claims a method of insulating a boot comprising providing a boot comprising having a toe cap area, a boot upper and a boot sole and providing and insulating component (claims 29 and 30). Kuznetz discloses an athletic shoe that is so insulated as to minimize heating of a foot housed therein as a result of solar radiation and heat conduction from ground (column 1, lines 7-16). The shoe of Kuznetz as shown in Figure 2 discloses toe cap area, a boot upper and a boot sole. Further, Kuznetz discloses an insert 13 formed of a thermal insulating material that is

Art Unit: 1771

sandwiched between inner sole and outer sole (column 3, lines 52-55). The thermally insulating insert 13 of Kunetz reads on applicant's "providing an insulating component" as claimed.

Regarding claims 28, 29, 42, and 43, as shown in Figure 5 of Kunetz, the thermally insulating insert 13 of Kunetz is between the inner layer 15 and outer layer 11 and is also affixed to an inner boot layer and adjacent to a wearer of the boot.

Kunetz is silent as to teaching of substantially incompressible insulating structure comprising a gas impermeable envelope and a porous material contained within the envelope and the insulating structure having a thermal conductivity of less than or equal to 25 mW/m K at 25°C (claims 27 and 30), substantially incompressible insulating structure has a loss of thickness of 20% or less at a pressure of 1 atm (claim 31), substantially incompressible insulating structure has a loss of thickness of 10% or less at a pressure of 1 atm (claim 32), porous material is a fumed metal oxide (claim 33), the porous material is fumed silica (claim 34), porous material is fumed alumina (claim 35), the method further comprising at least partially evacuating the gas impermeable envelope of air to a reduced pressure and sealing the gas impermeable envelope to maintain the reduced pressure (claims 36 and 37), gas impermeable envelope is under a vacuum pressure of up to about 10,000Pa (claims 38 and 40), gas impermeable envelope is under a vacuum pressure of about 1,000Pa or less (claims 39 and 41). However, Smith teaches insulation bodies such as vacuum panel (column 1, lines 5-7 and lines 21-23) that have improved thermal conductivities (column 1, lines 59-60). The insulation body of Smith comprises a particulate composition such as aerogels,

Art Unit: 1771

xerogels, metal oxide gels (e.g. silica and alumina) (column 1 lines 58-66 and column 6 lines 7-15) that is sealed in a gas impermeable barrier (e.g. pouch) under vacuum (column 11 lines 1-10 and lines 20-29). The examiner is equating the gas impermeable barrier of Smith with particulate composition as the insulating structure as claimed. With respect to claims 36-41, Smith teaches that the bag (i.e. gas impermeable barrier) is first evacuated to as low a pressure as desired, for example 133.2322-1,333.22 Pa (column 13, lines 1-6). It is noted that the secondary reference of Smith is not in the same field of endeavor as the applicant's claimed invention (i.e. method of insulating a boot). However note that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the applicant's claimed invention is trying to solve the problem of providing an insulating component for apparel (e.g. boot) that has greater insulation than conventional insulating material without substantially changing fit or appearance of the apparel (page 3, lines 24-26 of specification as filled on 01/16/04). The reference of Smith also provides composition and insulation body comprising said composition which has improved thermal conductivity and further the thickness of the vacuum insulation panel (insulation body) can be as thin as 3 mm (column 12, lines 50-53), which would make it suitable for use in applications such as shoe of Kuznetz which desires a thin insulating insert (column 2, lines 59-60) with reasonable expectation of success. Thus, it would have been obvious to one having

Art Unit: 1771

ordinary skill in the art at the time the invention was made to use the vacuum panel of Smith as a thin insulating insert in the invention of Kuznetz, motivated by the desire to provide insulating insert with improved thermal conductivity.

Although, Smith does not explicitly teach that the insulating structure is substantially incompressible structure and it has a thermal conductivity of less than or equal to 25 mW/m at 25°C (claims 27 and 30), incompressible insulating structure has a loss of thickness of 20% or less and 10% or less at a pressure of 1 atm (claims 31 and 32). However, it is reasonable to presume that said properties are necessarily present in the invention of Smith because like materials have like properties. In the presently claimed invention, the insulating structure of applicant comprises a porous material contained in a gas impermeable envelope. Further the porous material can be aerogels of silica or other metal oxide (specification page 5, lines 29-30). Smith also discloses a porous material such as silica gels, aerogels, metal oxides (column 6, lines 7-15) that are enclosed in a gas impermeable barrier (e.g. pouch) that is formed of metallized polymeric materials and metal foil laminates (column 11, lines 11-18). Therefore, the presently claimed properties would have been present. Note reliance upon inherency is not improper even though the rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

Art Unit: 1771

are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-34 of copending Application No. 11/106,788 in view of Garbuio (US 3,925,916) substantially as set forth in 04/20/06 Office action. The claims 1-34 of copending Application No. 11/106,788 teaches every limitation of claims 27-29 except toe cap area, a boot upper, a boot sole, boot comprising inner and outer boot layers wherein the insulation component is positioned between the layers, and insulating component is affixed to the inner layer and adjacent to a wearer of the boot. However, Garbuio teaches a flexible insulated insert for a boot (Abstract) wherein the Figure 1 of Garbuio shows a boot with a toe cap area, a boot upper, a boot sole, inner, and outer boot layers as claimed in the presently claimed subject matter. Thus, it would have been obvious to one having ordinary skill in the art to use the boot structure of Garbuio with the insulated article as

Art Unit: 1771

disclosed in the copending Application No. 11/106,788, motivated by the desire to provide insulated footwear.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

7. Applicant's arguments filed 09/20/06 have been fully considered but they are not persuasive.

The art rejections of Garbuio are maintained for the following reasons. The applicant argues that one skilled in the art would understand that the foamed materials (e.g. polyurethane) of Garbuio would have thermal conductivity greater than air as do conventional insulating materials as indicated by the background section of the instant application. Further the applicant argues that one skilled in the art knows that the thermal conductivity of air is about 25 mW/mK at about 25°C and that the thermal conductivity of open-celled polyurethane foam is greater than air at ambient conditions (page 8 of 09/20/06 amendment). The applicant's arguments are not found persuasive in determination of patentability because said arguments are based on applicant's personal opinion and not based on any factual evidence on the record. Further the background section of applicant's application (pages 1-3) provides no evidence that would indicate that the polyurethane foamed materials (e.g. polyurethane) have thermal conductivity that is greater than air as asserted by the applicant.

The applicant argues that Garbuio teaches forming the liner by sealing the envelope along the boundary with very little effort and conventional equipment, thus no

Art Unit: 1771

method is disclosed is suggested for forming a liner having a lower thermal conductive liner than which would be expected to be formed from the materials provided and conventional equipment. The applicant's arguments are not found persuasive in determination of patentability because these arguments are not in commensurate in scope with the claims. The claims do not teach or suggest anything about use of any equipment or how the envelope is sealed along the boundary.

Regarding claims 28 and 29, the applicant argues that Garbuio does not teach or suggest positioning a foot-filling liner between inner or outer boot layers or affixing the liner to an inner boot layer because to do so would make the liner of Garbuio unfit for its intended purpose of providing an extractable liner. The examiner respectfully disagrees. As previously noted, regarding claim 28, Figure 1 of Garbuio clearly shows the ski boot 1 having insert 2 (foot-filling liner) that is located between the inner and outer layers. Note claim 29 requires that the insulating component is "affixed" to an inner boot layer and adjacent to a wearer of boot. As shown in Figure 1 of Garbuio, when the wearer wears the ski boot of Garbuio, the insert 2 will be affixed to the inner layer. Accordingly, art rejections are maintained.

As to the applicant's arguments regarding double patenting rejections, said arguments are not found persuasive because the applicant has not explicitly pointed out the supposed errors in the examiner's rejection. Accordingly, these rejections are maintained.

Art Unit: 1771

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

APD



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700